Pseudo-dissection of aorta in a infant

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An nine-month-old infant was admitted to our institution for investigation of tracheal obstructive symptoms: frequent episodes of respiratory tract infection, and cough (all symptoms since 6 months) and was treated medically in the pediatric ward. On admission, the patient's blood pressure was 80/60 mmHg, and his pulse was 120 beats/min and rhythmic. His respiratory rate was 22 breaths/min with normal vesicular breathing and no added sounds. ECG showed normal sinus rhythm. Transthoracic echocardiography (TTE) was performed and it revealed normal ventricular and valvular dimensions and functions (Figure 1). Computed tomography angiography (CTA) was performed to investigate airway compression due to any vascular ring. After CTA observation, the patient was referred to our because appearence of aortic dissection in CTA (Figure 2). On control TTE after CT images revealed as normal again.

Imaging modalities as TTE, transoesophageal echocardiography (TOE) CTA and magnetic resonance angiography (MRA) play a critical role in rapid and accurate detection of aortic dissection [1,2]. These images has markedly facilitated diagnosis and follow-up of dissections. For this particular condition, TTE and TOE usually allows to adequately visualize the aorta and can often diagnose involvement of the aortic root and proximal ascending aorta. CT or MRI is more useful involvement of the arch and descending aorta. CTA is typically the best imaging modality to use for rapid diagnosis. MRA is useful in the context of following patients with known aortic dissection. Contrast-TTE has similar accuracy to TOE in the diagnosis of type A aortic dissection [2]. Each modality has its advantages and disadvantages. CTA may also occasionally exhibit false positives, showing a pseudo-dissection when there is streaking of contrast caused by motion artifact [2,3]. Other conditions also may mimic a dissection such as mural thrombus, intramural hematoma, or a penetrating atherosclerotic ulceration [2].

Transthoracic echocardiography suffices for assessment of the proximal and ascending aorta. The management of the patient and decision-making for accurate diagnosis should be based on clinical grounds addition to imaging modalities.

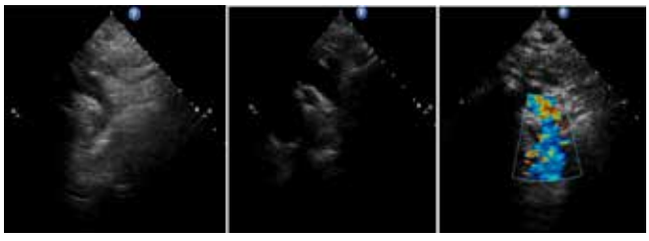

Figure 1. Transthoracic echocardiogram showing normal ascending aorta.

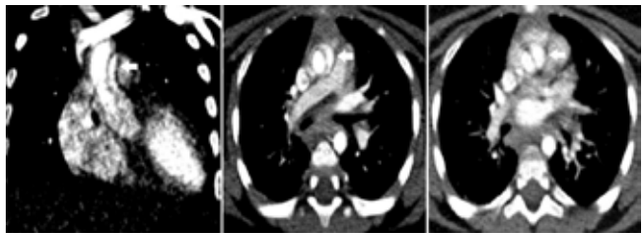

Figure 2. CT angiogram of the aorta demonstrating artefact (arrows)

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